Water Resources Advisory Commission Meeting September 1, 2016

2017 Priority Water Body List

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Principal Scientist
Applied Sciences Bureau

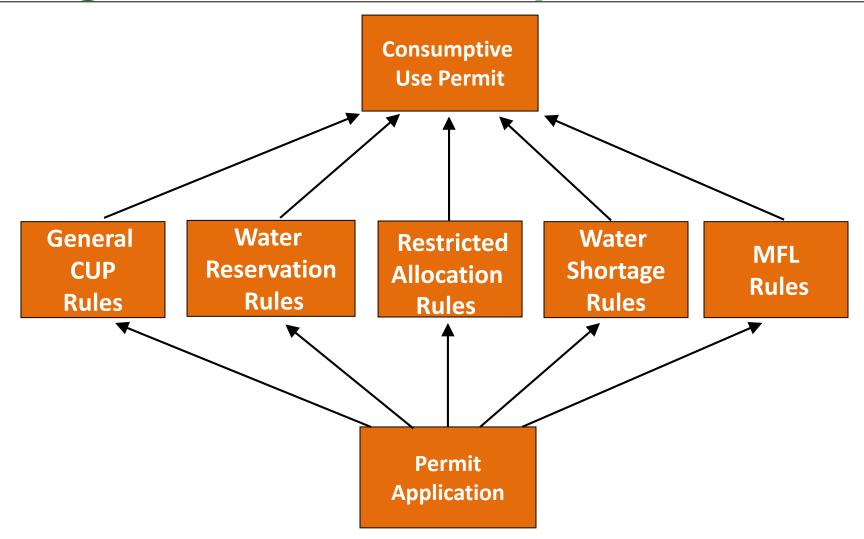


Purpose of Annual Priority List

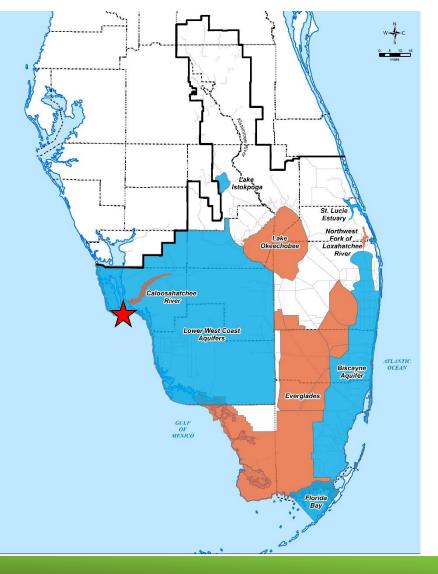
- Annual priority list and schedule for setting Minimum Flows and Levels (MFLs) and Reservations required by statute
- WMD prepares and submits to Florida Department of Environmental Protection (FDEP)
- FDEP reviews & approves



Water Resource Protection Tools are Integral Part of Consumptive Use Permits



Existing MFL Water Bodies



MFL Prevention Waterbodies

- Biscayne aquifer
- Lower West Coast aquifers
- St Lucie Estuary
- Lake Istokpoga
- Florida Bay

MFL Recovery Waterbodies

- Lake Okeechobee
- Everglades (5 MFL's)



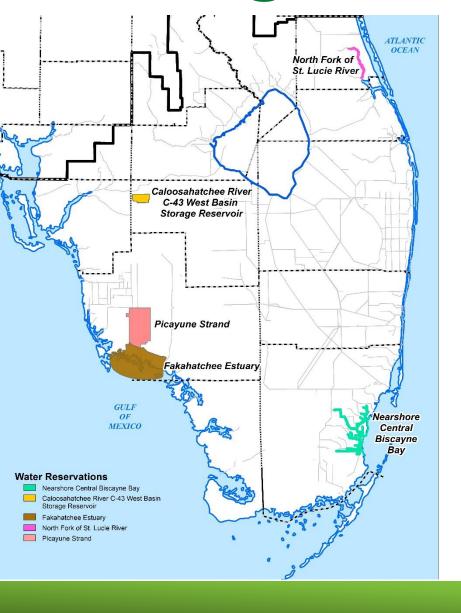
- Caloosahatchee River
- Northwest Fork of Loxahatchee River

Cover over 8 million acres districtwide



Proposed for the 2017 Priority Water Body List and Schedule

Existing Water Reservations



- Picayune Strand
- Fakahatchee Estuary
- North Fork of the St. Lucie River
- Nearshore Central Biscayne Bay
- Caloosahatchee River C-43
 West Basin Storage
 Reservoir

Cover 172,074 acres districtwide

2017 Priority Water Bodies - MFLs

Caloosahatchee River

- Complete Science Documentation
- Utilize models to evaluate the MFL criteria
- Complete technical analysis and its documentation in 2016
- Complete peer review 2017
- Determine if revisions to existing MFL rule are needed and initiate process as appropriate



Caloosahatchee Science Symposium

- District scientist have completed a comprehensive assessment of the science for the Caloosahatchee River Estuary
- 2-Day Public Science Symposium is planned for September 14-15, 2016
- Goal: To communicate science information to interested parties in a public forum
 - Requesting input and feedback from other scientists
 - Staff will incorporate additional science where appropriate





Science Components

Component

Method

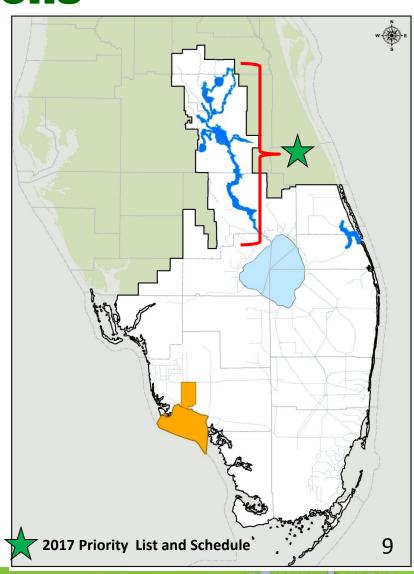
Hydrodynamics Influence of alterations on hydrodynamics **Inflow vs. Salinity** Monthly freshwater-salinity relationships Relationships between inflow, salinity, and water quality 3 **Water Quality** 4 Zooplankton Inflow, zooplankton and habitat compression Ichthyoplankton 5 Relationships between ichthyoplankton and inflow 6 **Benthic Fauna** Macrofauna-salinity patterns relative to inflow Empirical relationships between tape grass, S, and inflow 7 Vallisneria data Model exploration of tape grass, S, light, and inflow 8 Vallisneria model 9 **Oyster Habitat** Salinity patterns for oyster habitat in lower CRE 10 **Blue Crabs** Relationships between blue crab landings, rainfall, and inflow 11 Sawfish Dry season inflow, hydrodynamics, and habitat extent



2017 Priority Water Bodies - Reservations

Rule Under Development

- Kissimmee Basin
 - Kissimmee Chain of Lakes
 - Kissimmee River & floodplain
- Activities completed:
 - 2 Public workshops held
 - Draft technical report
 - Draft rule language
- Activities in progress:
 - Evaluating public comments
 - Schedule additional workshops in 2017



New Statutory Requirements for MFLs

- Senate Bill 552 (Water Bill) became Law in 2016
- Requires MFLs waterbodies to have a grading system based on their level of impairment:
 - Variance from adopted MFL (criteria); and,
 - Time estimated to recover
- Grading system is being developed in coordination with Florida Department of Environmental Protection
- Only MFLs that have projects associated with a recovery or prevention strategy
- Must be incorporated into the Consolidated Annual Report –
 South Florida Environmental Report



QUESTIONS

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